



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/651,322	08/28/2003	Yong Pan	8441C	7803
27752	7590	05/05/2005	EXAMINER	
THE PROCTER & GAMBLE COMPANY INTELLECTUAL PROPERTY DIVISION WINTON HILL TECHNICAL CENTER - BOX 161 6110 CENTER HILL AVENUE CINCINNATI, OH 45224			PARADISO, JOHN ROGER	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/651,322

Applicant(s)

PAN ET AL.

Examiner

John R Paradiso

Art Unit

3721

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 16-34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/20/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Invention I, claims 1-15, in the reply filed on 7/16/2004 is acknowledged.

Specification

2. The abstract of the disclosure is objected to because it is directed to subject matter other than the claimed atmosphere modifying device. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by CARR ET AL (US 6132781).

CARR ET AL discloses an atmosphere modifying device including an oxygen scavenger (28) (CARR ET AL column 6:16-25 and Fig. 5B) and a carbon dioxide emitter (40) (CARR ET AL column 3:26-36, 7:1-16, and Fig. 4).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over CARR ET AL, which discloses an atmosphere modifying device, as described above.

CARR ET AL does not specifically disclose the CO₂ emitter as being the specified carbonate or acid, or of the ratio or particle size of said components.

However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the CO₂ emitter of a carbonate from the claimed group and an organic acid, in order to simply and cheaply create CO₂, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (in this case a common chemical reaction) as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

It would also have been obvious to one of ordinary skill in the art at the time the invention was made to mix the carbonate and acid in the modified invention of CARR ET AL in the claimed ratios in order to produce the most efficacious amount of CO₂, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would also have been obvious to one of ordinary skill in the art at the time the invention was made to make the particle size of the CO₂ emitter of CARR ET AL in the claimed dimensions in order to most effectively produce the desired CO₂, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Regarding claim 8, the phrase “oxygen scavenger removes at a rate of about 5 cubic centimeters an hour or greater” is considered functional language and given little patentable weight.

7. Claims 9, 10, and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over CARR ET AL in view of SCHVESTER ET AL (US 5203138)

CARR ET AL, which discloses an atmosphere modifying device, as described above.

CARR ET AL does not disclose an ethylene scavenger.

SCHVESTER ET AL discloses an atmosphere modifying device using an ethylene scavenger to minimize the deleterious effects of ethylene on vegetable matter (SCHVESTER ET AL column 1:52-2:2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add an ethylene scavenger, as taught by SCHVESTER ET AL, to the invention of CARR ET AL in order to remove a wider variety of contaminants from a package of salable produce.

Art Unit: 3721

Regarding claim 10, the combination of CARR ET AL and SCHVESTER ET AL does not specifically disclose the claimed components of the ethylene scavenger. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the ethylene scavenger of the combination of CARR ET AL and SCHVESTER ET AL from the claimed group, in order to simply and cheaply scavenge ethylene, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (in this case a common chemical reaction) as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

Allowable Subject Matter

8. Claims 11 and 12 are allowed.

9. The following is an examiner's statement of reasons for allowance: the prior art could not alone or in combination anticipate or make obvious an atmosphere modifying device with a first compartment containing a CO₂ emitter, a second compartment containing an O₂ scavenger, and a third compartment containing an ethylene scavenger.

The most pertinent prior art, CARR ET AL and SCHVESTER ET AL, disclose the individual components of the CO₂ emitter, O₂ scavenger, and ethylene scavenger, but do not disclose putting them in separate compartments within an enclosure with gas permeable dividers.

Art Unit: 3721

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Paradiso. The examiner can normally be reached Monday-Friday, 9:30 p.m. – 6:00 p.m. (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada, can be reached at the number listed below.

Any inquiry of a general nature or relating to the status of this application should be directed to the 3700 Technology Center Receptionist.



Examiner John Paradiso: (571) 272-4466

May 2, 2005

Additional Phone Numbers:

Supervisor Rinaldi Rada: (571) 308-7135

Fax (Official): (703) 872-9306

Fax (Direct to Examiner) (571) 273-4466 (Drafts only)